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APPLICATION NO.	FILING DATE	FIRST NAME D INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10-005,882	12-03-2001	Sheng-Hsin Hu	KCX-439 (15571)	7987

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EXAMINER

CHIN, PETER

ART UNIT PAPER NUMBER

1731

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,882

Examiner

Peter Chin

Applicant(s)

HU ET AL.

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-11-03.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-3,5-2426-36,38-46 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Phan et al (5,427,696 or 5,510,000) and Meisel et al (3,844,880).

Phan et al add cationic quaternary ammonium debonder, wet strength and dry strength resins to the multiply tissue pulp stock during paper formation. Columns 17 and 14 respectively of Phan et al '696 and '000 disclose dry strength latex binders of the type disclosed in Meisel et al. Meisel et al by specific example in column 3 uses a latex binder having a T_g of $+3^\circ$ C. The binder is added at the rate of 0.01-1% in Phan et al '696, column 16 and 0.01 to 3% in Phan et al '000. The debonder is added at a rate of 0.005 to 5%, columns 11 and 4 of Phan et al '696 and '000, respectively. Thus, the Phan et al patents anticipate the claimed invention. However, if any difference in the way of the debonder/softener or latex binder can be gleaned from the claims, such difference would have been an obvious choice of well known binder or debonder/softener used in the art.

Note that the present claims are open to the presence of the latex binder in all layers of the multilayer sheet. Should there be any reason to evidence the teaching of distributing the dry strength binder to the outer layer, Phan et al (5,437,766) is cited to evidence the same.

2. Claims 4,25 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phan et al (5,427,696 or 5,510,000) and Meisel et al (3,844,880) in view of Larson et al (6,129,815) or Vinson et al (5,851,352).

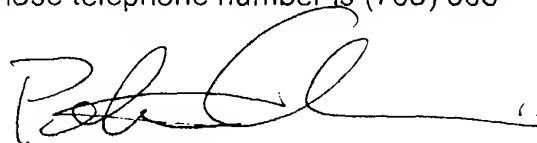
It would have been obvious to employ the claimed glass transition temperature for latex binder in Phan et al since it is standard in the art to use latex binder having T_g of -30 to $+10^\circ\text{C}$.

3. New corrected drawings are required in this application because the submitted drawings are informal in view of the crude lines and numbering. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Peter Chin
Primary Examiner
Art Unit 1731